

PROF. MASSEY'S VIEWS

(Progressive Farmer.)

It is a good thing to get the boys interested in the production of prize crops, for they are the hope of the country, and when once a boy finds how much can be produced on an acre, he will try when he gets to farming to bring all his acres up to the notch. Not by the extravagant means usually employed by the men who work for prizes, but through systematic improvement of the soil over the whole farm. I have mentioned the case of a friend of mine who last year made 97 1-2 bushels an acre over a thirty-acre field with only crimson clover turned under and no manure or fertilizer used. But he had brought that land up through years of good farming with clover and peas and manure, and his wheat crops after corn are the finest in the neighborhood, for he usually makes over 40 bushels per acre, and uses only acid phosphate and potash on the wheat. I am getting hundreds of letters, all asking what sort of a fertilizer mixture to make for corn, when the writers would never need any if they grew plenty of peas and crimson clover and fed their roughage on the farm, and always had a manured clover sod to turn for corn and a clover sod to turn for cotton.

Let the boys work for prize acres, but let the men work to make all their acres prize ones.

Two Sources of Nitrogen.

My mail is burdened with letters from farmers asking what formula of fertilizer is best to put under corn.

I invariably say that the best thing I have ever known under corn is a crimson clover sod on which the farm manure has been broadcasted during the winter. I would not give such a preparation for all the fertilizer Mr. Mr. Williamson cures his stunted corn with. There is nothing that tires me so much as the constant dependence of our farmers on fertilizers to grow crops. Now and then I am encouraged by one who writes asking the best rotation of crops for his land, for I think that here is at least one who is trying to get out of the bondage to the fertilizer trust, and to go to farming in reality.

One reader asks: "Is cotton seed meal and acid phosphate mixed in equal parts better for corn than 8-2-2 fertilizer?" In such a mixture he would get over 9 per cent of phosphoric acid, more than twice as much nitrogen as in the 8-2-2 and very nearly as much potash. The difficulty is, that farmers will not study the amounts of plant food contained in the different materials used in mixing fertilizer nor the cost of the elements they want in each. At present prices nitrogen in cotton seed meal is rather costly as compared with nitrate of soda, but if nitrogen is used, we need some organic form to go with the nitrate to keep up the feeding of the crop, and you can refer to the bulletins of the State Departments of Agriculture and of the experiment stations and find out what nitrogen costs in various materials.

But, while nitrogen is costly in any form when bought in a fertilizer, it is the cheapest thing the farmer can get if he farms right, and uses the legumes to get it for him. Then he never needs to spend a cent for nitrogen in a fertilizer, and can, for the same money he has been spending for complete fertilizer mixtures, get far more phosphoric acid and potash, that will stay in his soil till some plant calls for them, and will not leach away as nitrogen does as soon as it is in a form that plants can use.

All over the South men are paying 20 cents or more a pound for nitrogen in mixed fertilizers, when by proper systematic farming they could have free on every acre cultivated more nitrogen than a whole ton of 8-2-2 will give them. Two hundred pounds of 8-2-2 adds less than 4 pounds of nitrogen when spread over a whole acre, yet many farmers expect this to have a great effect.

Try to spread 25 pounds of nitrate of soda evenly over a whole acre, and you will find that it is put there very thinly. And yet that will be about equal to the 4 pounds of ammonia in the 200 pounds of 8-2-2. A ton of the 8-2-2 will contain 34 pounds of actual nitrogen. A crop of crimson clover turned under mature will give you from 10 to 50 pounds an acre of nitrogen, or far more than you would get in a whole ton of the 8-2-2. Yet you will pay hard cash to the tune of nearly \$7 for the nitrogen in the ton of fertilizer, when the clover will give you almost twice as much and will add humus to the soil. Thousands are using a little over three pounds of actual nitrogen when they could have turned under to the crop over 40 pounds in a crop of clover, and would have added permanent improvement to the soil; and millions of tons of 8-2-2 are sold under over 200 different brands, while unestimated millions of pounds of nitrogen float over every acre waiting for some one to catch them, and get paid for the catching in the increased production of his land.

So Southern farmers wade through a sea of nitrogen and dream golden dreams over a little sack of fertilizer

they pay their hard cash for, because the sack stinks and the air does not, though nature is ready to supply all needed nitrogen if the farmer will only use the means for getting it.

Lime For Peanuts.

The best peanut soils in the South are deficient in the mineral matters especially needed by peanuts, phosphoric acid and potash. The peanut plant, being a legume, can get its nitrogen from the air, and when the mineral elements are abundantly supplied, needs no application of nitrogen in the fertilizer. This is especially true when a good rotation of crops is practiced and the soil is supplied with humus-making materials from cow peas and crimson clover.

Lime is useful to peanuts solely because it releases insoluble potash in the soil, and this being already deficient in the best peanut soils, the effect of lime in the long run is to deplete the soil of potash. Where the plants can get abundant supplies of phosphoric acid and potash, lime is not needed, except as the soil gets into an acid condition. Plaster will also release potash, and as there is 30 pounds of plaster or sulphate of lime in every 100 pounds of acid phosphate, a heavy application of acid phosphate will do as much for the release of potash as an application of plaster. Lime will be useful in soil that has a large amount of humus and has gotten into an acid condition, but pots are not the result of the lack of lime, but of the lack of phosphoric acid and potash which are essential to the formation of the seed.

This refers especially to the soils of the Atlantic Coast region. In the Gulf States where most soils seem to be well supplied with potash there is a probability that acid phosphate will be the only fertilizer needed for peanuts, though it will be well for farmers there to experiment with lime on the land that is put in peanuts.

If the land is acid it must be sweetened, for the bacteria that enable the peanuts to get nitrogen from the air will not thrive in an acid soil. If one will get a piece of blue litmus paper from a drug store, and mix some of his soil to a lobbly with water, and place the paper in it for a while, and finds that it turns pink in color, lime will do good. To apply lime, plow the land well and spread the lime at the rate of 25 bushels per acre and harrow it in. Then use on the peanuts 400 to 500 pounds of acid phosphate. Without lime you can use the same amount of basic slag or Thomas phosphate, which carries about forty pounds of lime in every 100 pounds, and I believe that this will be as well, or better, for the nuts than liming and acid phosphate. This will be cheaper than buying lime, for the price of the Thomas phosphate is regulated by the percentage of phosphoric acid, and you can get the lime practically free.

Planting the Home Grounds.

Mrs. Stevens writes well on this subject. Making the home beautiful is one of the best means for keeping the boys and girls on the farm. I am fitting up a new home, and one of the first things done was to plant thirty varieties of shrubbery to mass around the porch. And I do not intend to stop at that, for I have planted gladioli by the hundred to shoot up and bloom among the shrubs, and a border of scarlet sage on the outside of the shrubbery border. Then I have hundreds of flowers coming on from seed sown in the frames under glass, and hope to make the lawn gay all summer through. I have hundreds of seedling dahlias, and few people understand that we can get dahlias in bloom from seed just as soon as from roots, and there is lots of fun watching to see what they are going to turn out.

Preparing for Cotton.

The best cotton farming is really

done in April in the careful preparation of the soil. This does not mean making up large beds weeks and weeks before planting and then drilling the cotton on these dry and crusty beds. It means a thorough fining of the soil, and if you plant on beds, make and plant them as soon as possible after they are made. But if your land is high and well drained, try planting on the level and fertilizing broadcast, for cotton roots run far and wide across the rows and soon get away from a little fertilizer scattered in the furrows. I had rather have the fertilizer all over the land, or rather have it in a furrow down the middles than all under it, for the roots will find it in the middles just when they need it most, at fruiting time.

Mr. W. H. Riddle, of Fork, Md., has issued a prettily illustrated pamphlet showing how he works his corn crop from start to finish with a weeder, and has no weeds in it when finished. I suppose he will send it to any one. The man who uses the weeder promptly seldom gets in the grass, for he can go over the land so rapidly that he kills the grass before it gets started well, while his neighbor with the old one-mule implements can not catch up in time and the spring rains fill his crops with grass that the plow must be used to cover and much human labor wasted in the effort.

PICKED UP IN THE ORCHARD.

Young apple trees may be protected against the ravages of destructive annual pests by wire netting.

After trees are planted cover with loose soil for a mulch. When growing apply stable manure worked into soil, but do not let it touch the trees.

Cultivate cotton, peas and red clover in your young orchard. This will benefit the trees and at the same time give you an income.

In the warmer climates every one who wishes a beautiful shade tree, should plant the pecan. It will not only give delightful shade, but delicious nuts raised may easily be made a source of profit.

Cultivate around your trees with a hoe several times during the year and keep a mulch of grass over the cultivated space.

When trees commence to bear, use a fertilizer rich in potash, wood ashes can be used to advantage at that time.

"As the twig is bent, so is the tree inclined." While the tree is young, give it the shape desired.

Make a smooth even cut when pruning. Never saw away part of the branch and break off the rest.

If spraying is done late and the fruit has formed, never use Paris green in the spray.

White hellebore is a substitute for Paris Green. It may be applied to the bushes dry, mixed with three times its weight of flour.

SUCCULENCE IN FOODS.

Succulence is a term applied to foods which contain a certain proportion of water. Milk is 84 per cent water. In summer cattle get all the succulence they require. In winter succulent foods have to be furnished if we expect to keep up the milk flow.

It is the water which the cow gets in her food rather than the water which she drinks that goes into the milk. Much of the water which she drinks, is used by nature to carry off certain chemicals in the system for which she has no longer any use. The excess of nitrogen is carried off in this way and gives this expelled water an ammonia odor.

All grains contain some water but not enough. Silo and roots are rich in water content. When her ration is made up of a share of succulence in winter the cow keeps up her normal supply. But it is due to this principle that an improperly wintered cow, increases her milk flow when she is returned to pasture in the spring.—C. C. W., Omaha.

"SQUATTERS' RIGHTS" RECOGNIZED BY GOVERNMENT.

An Order Just Issued by Secretary Wilson Provides for a More Liberal Treatment of Settlers Upon Lands Within National Forests.

Under the homestead law it is impossible for any one to secure legal title to unsurveyed public land, but occupancy prior to survey is recognized as giving prior claim to the land after survey under what is known as "squatters' rights." A squatter who had in good faith taken possession of a piece of national forest land before the National Forests were created, is not dispossessed of his claim by the Forest Service, and if he lives upon it and cultivates it until the land has been surveyed, he is able to get his homestead just as though he had settled on any part of the unsurveyed public domain. But since the passage of the Act of June 11, 1906, which permits the Secretary of Agriculture to list for settlement land which he finds chiefly valuable agriculture, it has been possible for squatters to apply for the listing of their lands under this Act and thus to obtain title prior to the government survey. The object of the new order of the Secretary is to provide for the listing of the full amount of land which the occupant would receive if he exercised his action of awaiting the government survey, irrespective of whether or not the entire area is cultivatable provided the claim is bona fide and the land is not more valuable for its timber than for agriculture.

Secretary Wilson's order is as follows:

"A person who has settled upon and continuously occupied unsurveyed lands within a National Forest before its creation and is at the present time occupying such lands in good faith and is in all respects complying with the homestead law, has the right to include within the rights of his homestead 160 acres after the land is surveyed. Therefore, if the land is occupied for agricultural purposes and is not its timber than for such purposes, and there are no circumstances which would in the opinion of the District Forester tend to discredit the bonafides of the claimant, he should be allowed to make application for the patenting of such lands under the Act of June 11, 1906, and the examination for listing should be made with a view of listing 160 acres of land where possible. The tracts as listed should conform so far as practicable to the form of the public land surveys. The listing of lands as above should not in any way govern the determination of the total area or amount of non-cultivable lands listed for applicants under the Act of June 11, 1906, who were not residing upon the land before the creation of the Forest.

"In cases where less than 160 acres of land has been listed to a person who settled upon the land prior to the creation of the Forest, an additional area sufficient to complete the homestead entry may be allowed upon proper application."

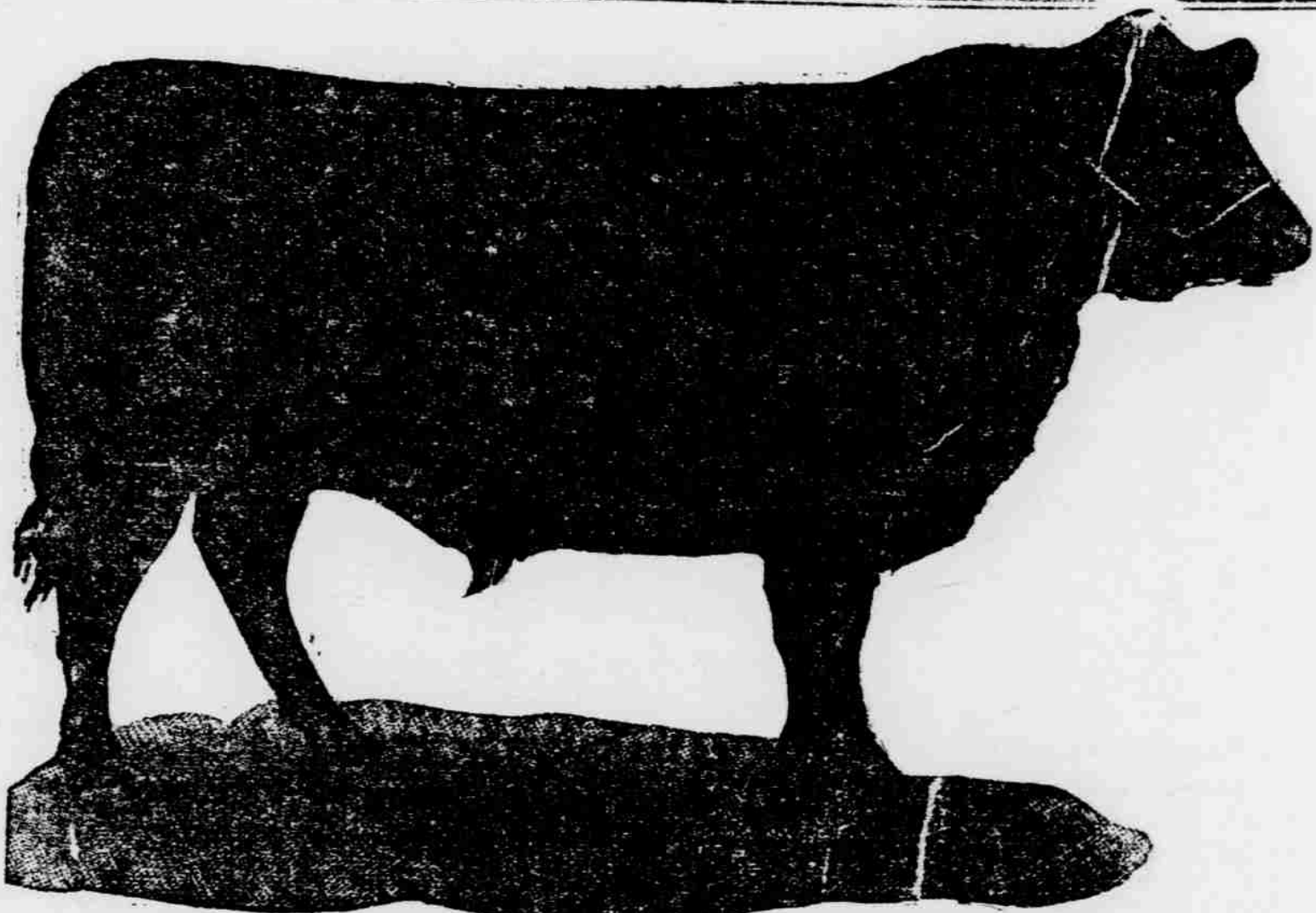
IN THE SHEEPFOLD.

Never feed rye straw to pregnant ewes. It generally contains more of less ergot which produces abortion.

A trough for dipping lambs can be made for very little expense and the sheep raiser should be without one. A tank twelve feet long, four feet deep and three feet wide is big enough for lambs and grown animals.

If you find a lamb thoroughly chilled just after being born put him in a tub of warm water and pour a teaspoon of gin in a half a pint of hot water down his throat. This will quickly put him on his feet.

A market squab raiser can not find a high as the fancier, but he must feed good, wholesome grain, avoiding that which has been damaged in any way.



This great Angus steer Black Rock was one of the grand champions at the Chicago International Live Stock Show. He was fed and exhibited by the Iowa State College.